UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,681	07/23/2003	Kohshiro Inomata	116655	6682

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OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER
FIELDS, COURTNEY D

ART UNIT	PAPER NUMBER
2137	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/624,681	INOMATA ET AL.
	Examiner	Art Unit	
	Courtney D. Fields	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 March 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 5-8 have been amended.

2.   Claims 1-15 are pending.

Response to Arguments

3.   Applicant's arguments with respect to claims 1 and 8 have been considered but

are moot in view of the new ground(s) of rejection, Bledsoe (US Patent No. 4,700,175)

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Barbir (US Patent No. 6,122,379) in view of Bledsoe (US Patent No. 4,700,175).

        Referring to the rejection of claims 1,12, and 14, Barbir discloses a

device, method, and computer readable medium for compressing and encrypting

data, comprising:

        a compressor for compressing original data with reference to a reference table

(See Column 5, lines 41-44)

        an encryptor for encrypting the original data using a compression/encryption

table (See Column 5, lines 66-67 and Column 6, lines 1-2)

        However, Barbir does not explicitly disclose that the reference table is encrypted,

multiplexing of compressed data, and a demultiplexor for extracting compressed data.

Bledsoe discloses a data communication method for compression of data by encoding using a modified Huffman code.

Bledsoe discloses an encryptor for encrypting the reference table itself or information necessary to reconstruct the reference table (See Column, lines 4, lines 54-68)

and a multiplexor for multiplexing compressed data obtained from the compressor and encrypted data obtained from the encryptor to create multiplexed data, wherein the multiplexed data is output as an encryption result (See Column 4, lines 16-22)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Barbir's compression and encryption method with Bledsoe's data communication with modified Huffman coding. Motivation for such an implementation would enable the encoding to be optimized for each port as a function of the type data being processed and ease the storage required in the ports to change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claims 2 and 9, (Barbir as modified by Bledsoe) discloses the claimed limitation wherein the reference table is a quantization table determining quantization step size when quantizing values of respective frequency components of the original data (See Bledsoe, Column 4, lines 7-15)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Barbir's compression and encryption method with Bledsoe's data communication with modified Huffman coding. Motivation for such

an implementation would enable the encoding to be optimized for each port as a function of the type data being processed and ease the storage required in the ports to change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claims 3 and 10, (Barbir as modified by Bledsoe) discloses the claimed limitation wherein the reference table is a coding table determining a relationship between data values and code words when performing entropy encoding of data (See Bledsoe, Column 7, lines 64-68 and Column 8, lines 1-16)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Barbir's compression and encryption method with Bledsoe's data communication with modified Huffman coding. Motivation for such an implementation would enable the encoding to be optimized for each port as a function of the type data being processed and ease the storage required in the ports to change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claim 4, (Barbir as modified by Bledsoe) discloses the claimed limitation wherein the encryptor encrypts parameters necessary for interpreting data acquired from decompression of the compressed data (See Bledsoe, Column 6, lines 23-39)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Barbir's compression and encryption method with Bledsoe's data communication with modified Huffman coding. Motivation for such an implementation would enable the encoding to be optimized for each port as a

function of the type data being processed and ease the storage required in the ports to

change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claim 5, (Barbir as modified by Bledsoe) discloses

the claimed limitation wherein the encryptor further encrypts partial data extracted from

the compressed data by the data extractor, and the multiplexor multiplexes data

remaining having the partial data removed from the compressed data with the

encryption result from the encryptor to generate multiplexed data (See Bledsoe, Column

4, lines 41-49)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to combine Barbir's compression and encryption method

with Bledsoe's data communication with modified Huffman coding. Motivation for such

an implementation would enable the encoding to be optimized for each port as a

function of the type data being processed and ease the storage required in the ports to

change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claim 6, (Barbir as modified by Bledsoe) discloses

the claimed limitation wherein the compressor performs data compression using a

reference table that has been changed by the reference table changing means (See

Bledsoe, Column 9, lines 64-68, Column 10, lines 13-28)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to combine Barbir's compression and encryption method

with Bledsoe's data communication with modified Huffman coding. Motivation for such

an implementation would enable the encoding to be optimized for each port as a

function of the type data being processed and ease the storage required in the ports to

change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claim 7, (Barbir as modified by Bledsoe) discloses

the claimed limitation wherein the compressor performs data compression using a

reference table that has been changed in size by the reference table changing means

(See Bledsoe, Column 12, lines 57-65)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to combine Barbir's compression and encryption method

with Bledsoe's data communication with modified Huffman coding. Motivation for such

an implementation would enable the encoding to be optimized for each port as a

function of the type data being processed and ease the storage required in the ports to

change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claim 8, (Barbir as modified by Bledsoe) discloses a

device for reproducing original data by decompressing and decrypting data that has

been compressed and encrypted, comprising:

a demultiplexor for extracting compressed data which is a compressed result

obtained by compressing the original data and encrypted data which is an encrypted

result obtained by encrypting a reference table to be referenced when performing data

compression of the compressed data from input multiplexed data (See Bledsoe, Column

4, lines 41-49)

a decoder for obtaining the reference table by decoding the encrypted data (See

Bledsoe, Column 4, lines 49-53)

and a decompressor for referencing the reference table to decompress the

compressed data, wherein decompressed data from the decompressor is output as a

decoded result (See Bledsoe, Column 4, lines 54-68)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to combine Barbir's compression and encryption method

with Bledsoe's data communication with modified Huffman coding. Motivation for such

an implementation would enable the encoding to be optimized for each port as a

function of the type data being processed and ease the storage required in the ports to

change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claim 11, (Barbir as modified by Bledsoe) discloses

the claimed limitation wherein partial data necessary to restore the original data is

removed from the compressed data, the encrypted data is the reference table and

partial data that has been removed from the compressed data encrypted, the decoder

obtains the reference table and the partial data by decoding the encrypted data, and the

decompressor complements the compressed data using the partial data obtained by the

decoder and carries out decompression of the complemented result by referencing the

reference table (See Bledsoe, Column 4, lines 41-49)

Therefore, it would have been obvious to one of ordinary skill in the art at the

time the invention was made to combine Barbir's compression and encryption method

with Bledsoe's data communication with modified Huffman coding. Motivation for such

an implementation would enable the encoding to be optimized for each port as a

function of the type data being processed and ease the storage required in the ports to change the code tables as the type of data being processed by a given port is changed.

Referring to the rejection of claims 13 and 15, (Barbir as modified by Bledsoe) discloses a method and computer readable medium of decompressing and decrypting data that has been compressed and encrypted, comprising steps of:

extracting compressed data and encrypted data from input multiplexed data (See Bledsoe, Column 4, lines 41-49)

restoring a reference table to be referenced when carrying out data decompression by decoding the encrypted data (See Bledsoe, Column 4, lines 49-53)

and referencing the reference table to decompress the decompressed data and outputting the decompressed result (See Bledsoe, Column 4, lines 54-68)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Barbir's compression and encryption method with Bledsoe's data communication with modified Huffman coding. Motivation for such an implementation would enable the encoding to be optimized for each port as a function of the type data being processed and ease the storage required in the ports to change the code tables as the type of data being processed by a given port is changed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cdf
July 8, 2007

MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137